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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Frank Charles Pagano

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JULIE BLACKBURN

REVLON CONSUMER PRODUCTS CORPORATION

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EXAMINER

GOLLAMUDI, SHARMILA S

ART UNIT

PAPER NUMBER

1616

DATE MAILED: 06/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/843,000	Applicant(s) PAGANO ET AL.	
	Examiner Sharmila S. Gollamudi	Art Unit 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 61-88 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 61-88 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Receipt of Request for Continued Examination and amendments filed 4/11/06 is acknowledged.

Claims **61-88** are pending in this application. Claims 1-60 stand cancelled.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/11/06 has been entered.

Specification

The objection for introducing new matter into the disclosure under 35 U.S.C. 132(a) since withdrawn in view of the amendment of 10/12/05.

Claim Rejections - 35 USC § 102

The rejection over claims 61-66 and 87 under 35 U.S.C. 102(b) as being anticipated by Strella et al (3,928,656) is withdrawn in view of the amendment of 4/11/06.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 61-66 and 87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stella et al (3,928,656) in view of Ohno (5854365).

Stella discloses a method of developing electrostatic latent images with pressure sensitive toner. The toner comprises 19 parts of an ionic polymer (15.8%), 100 parts of tetrahydrofuran (ether solvent-83.3%), and 1 part Mogul black (pigment- 0.8%). See example 1, column 9. The ionic polymer discloses isobutyl methacrylate-acrylic copolymer (94.2/5.8) with a TG of 46 degrees Celsius. See examples II. The examiner utilizes this intermediate composition to reject the claims. Stella teaches the use of a pigment or dye such as carbon black, a commercial red, blue, or yellow dye, or any other well-known pigment in an amount of 1-20%. See column 6, lines 4-16.

Although Stella teaches different pigments in the composition, the instant pigments are not specified.

Ohno teaches a toner composition wherein the pigment may be carbon black, an aniline black, acetylene black, naphthol yellow, Hansa yellow, rhodamine lake, alizarin lake, iron oxide red, phthalocyanine blue and indanthrene blue in the amount of 0.1-20%. See column 22, lines 25-40.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Strella and Ohno and utilize the instant pigment in the composition. One would have been motivated to do so since Strella teaches a variety of pigments may be utilized in the composition and Ohno teaches the functional equivalency of the instantly claimed pigment and the exemplified carbon black pigment taught in Strella. Therefore, one would have expected similar results by utilizing the instantly claimed pigments versus the prior art's pigment.

Response to Arguments

Applicant argues that tetrahydrofuran taught by Stella is carcinogenic and this it is not suitable for application to human nails.

Applicant's arguments filed 4/11/06 have been fully considered but they are not persuasive. The examiner points to US 6,254,878 wherein US '878 claims a nail polish wherein the solvent system is selected from several solvents including tetrahydrofuran. Clearly THF is used as the solvent of choice in cosmetics and thus Strella's composition is capable of being applied to human nails.

Claims 61-72, 81-84, and 85-88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perronin et al (3,991,007) in view of Strella (3,928,656).

Perronin teaches the preparation of pigmentary particles coated with an organic polymer to allow dispersible of the pigment in a medium.. Perronin discusses the importance of pigments in many fields such as textiles, plastics, inks, textiles, and cosmetics. Note column 1, lines 10-12. Perronin teaches examples of monomers which may be used in the process include 1) alkene-mono- or di-carboxylic acids, preferably the acids containing up to five carbon atoms, for

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example acrylic, methacrylic, etc.; 2) esters of these acids, such as methyl, ethyl, butyl, etc. see column 3, lines 40-60. Perronin teaches the pigments used in the composition may be mineral or organic pigments, with the exception of carbon black. Perronin teaches iron oxides, cadmium oranges, chrome yellows, molybdenum red and titanium dioxide as examples of mineral pigments. The organic pigments may belong to a variety of classes such as azo, azomethine, anthraquinone, phthalocyanine or indigoids. See column 2, line 65 to column 3, line 5.

Example 6 provides a composition with 100 parts a pigment, 350 parts heptane, 90 parts methyl methacrylate, and 10 parts acrylic acid. The pigment composition D is then combined in an amount of 190 parts (50% pigment and 50% 90/10 copolymer of MMA-AA), 50% nitrocellulose resin in butyl acetate in 86 parts, 210 parts ethyl acetate (ester solvent), 22 parts butanol, 155 parts isopropanol, and 28 parts butyl phthalate (plasticizer). Example 13 teaches a copolymer of methyl methacrylate and acrylic acid in the amount of 80-20. Note that nitrocellulose is in the amount of about 6.2% of the total composition; the pigment is in the amount of 13.7%, and the copolymer in the amount of 13.7%.

Although Perronin teaches that the monomers may be selected from several monomer including butyl and methyl esters of methacrylic acid, Perronin does not expressly teaches the instantly claimed butyl methacrylate-acrylic acid copolymer.

Strella discloses a method of developing electrostatic latent images with pressure sensitive toner. Strella teaches preparing a colored toner for forming a uniform dispersion of dye or pigment in a resinous material. The polymers taught include butyl methacrylate-acrylic acid, for providing toner compositions. See column 6, lines 15-30 and examples. The toner comprises 19 parts of an ionic polymer (15.8%), 100 parts of tetrahydrofuran (ether solvent-83.3%), and 1

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part Mogul black (pigment- 0.8%). See example 1, column 9. The ionic polymer discloses is butyl methacrylate-acrylic copolymer (94.2/5.8). See examples II. The examiner utilizes this intermediate composition to reject the claims. The examiner utilizes this intermediate composition to reject the claims. Strella teaches the use of a pigment or dye such as carbon black, a commercial red, blue, or yellow dye, or any other well-known pigment in an amount of 1-20%. See column 6, lines 4-16.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to look at Strella and utilize the instantly claimed copolymer. Strella demonstrates the prior art wherein it is known to utilize the instant copolymer to coat a pigment for dispersal in a solvent. Therefore, a skilled artisan would have been motivated to look to Strella and utilize the instant copolymer with the expectation of similar results since Strella teaches butyl methacrylate-acrylic acid copolymer as a suitable polymer to coat pigments and Perronin suggests the use of several monomers including esters of methacrylic acids wherein the alkyl may be butyl to coat the pigment.

With regard to the preamble, a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

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With regard to the functional limitations, it is the examiner's position that Perronin's composition is capable of leaving a water-insoluble film on the nail since the compositions are substantially similar.

With regard to claim 82, Perronin teaches 6.2% nitrocellulose and not instantly claimed 0.5-5%. However, it would have been obvious to a skilled artisan to manipulate this concentration during routine optimization and experimentation. It should be noted that generally difference in concentrations do not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such as concentration is critical. See *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

With regard to the copolymer molecular weight, the substitution of methyl for butyl will provide a molecular weight of about 68,000. The examiner cites US 5,798,426 as art of interest wherein '426 states that BMA/AA (90/10) has a weight of 69,400, which reads on about 68,000.

Response to Arguments

Applicant argues that tetrahydrofuran taught by Stella is carcinogenic and this it is not suitable for application to human nails. Applicant argues that Stella teaches only carbon black and Perronin discloses that carbon black is unsuitable for use in the composition and thus the combination is improper.

Applicant's arguments filed 4/11/06 have been fully considered but they are not persuasive. Firstly in regard to THF, the examiner points to US 6,254,878 wherein US '878 claims a nail polish wherein the solvent system is selected from several solvents including tetrahydrofuran. Clearly THF is used as the solvent of choice in cosmetics and thus Stella's composition is capable of being applied to human nails.

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Secondly, the examiner notes Perronin's disclosure that any pigment may be utilized except for carbon black. However, Strella is not limited to carbon black since Strella clearly teaches a variety of pigments including commercial reds, blues, and yellows may be utilized. Thus, the combination is not improper.

Claims 61-72, 81-84, and 85-88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perronin et al (3,991,007) by itself.

Perronin teaches the preparation of pigmentary particles coated with an organic polymer to allow dispersible of the pigment in a medium. Perronin discusses the importance of pigments in many fields such as textiles, plastics, inks, textiles, and cosmetics. Note column 1, lines 10-12. Perronin teaches examples of monomers which may be used in the process include 1) alkene-mono- or di-carboxylic acids, preferably the acids containing up to five carbon atoms, for example acrylic, methacrylic, etc.; 2) esters of these acids, such as methyl, ethyl, butyl, etc. see column 3, lines 40-60. Perronin teaches the pigments used in the composition may be mineral or organic pigments, with the exception of carbon black. Perronin teaches iron oxides, cadmium oranges, chrome yellows, molybdenum red and titanium dioxide as examples of mineral pigments. The organic pigments may belong to a variety of classes such as azo, azomethine, anthraquinone, phthalocyanine or indigoids. See column 2, line 65 to column 3, line 5.

Example 6 provides a composition with 100 parts a pigment, 350 parts heptane, 90 parts methyl methacrylate, and 10 parts acrylic acid. The pigment composition D is then combined in an amount of 190 parts (50% pigment and 50% 90/10 copolymer of MMA-AA), 50% nitrocellulose resin in butyl acetate in 86 parts, 210 parts ethyl acetate (ester solvent), 22 parts butanol, 155 parts isopropanol, and 28 parts butyl phthalate (plasticizer). Example 13 teaches a

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copolymer of methyl methacrylate and acrylic acid in the amount of 80-20. Note that nitrocellulose is in the amount of about 6.2% of the total composition; the pigment is in the amount of 13.7%, and the copolymer in the amount of 13.7%.

Although Perronin teaches that the monomers may be selected from several monomer including butyl and methyl esters of methacrylic acid, Perronin does not expressly teaches the instantly claimed butyl methacrylate-acrylic acid copolymer.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to look at the guidance provided by Perronin and utilize either methyl methacrylate or instant butyl methacrylate. One would have been motivated to do so since Perronin teaches several monomers may be copolymerizes such as esters of methacrylic acids including methyl and butyl. Thus a skilled artisan would have been motivated to substitute the exemplified methyl methacrylate with butyl methacrylate, i.e. substitute the exemplified methyl with butyl, since both are analogous compounds, i.e. both are alkyl esters of methacrylic acids. Therefore, absent unexpected results, substituting the prior art's methyl with instant butyl is deemed obvious to a skilled artisan.

With regard to the preamble, a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

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With regard to the functional limitations, it is the examiner's position that Perronin's composition is capable of leaving a water-insoluble film on the nail since the compositions are substantially similar.

With regard to claim 82, Perronin teaches 6.2% nitrocellulose and not instantly claimed 0.5-5%. However, it would have been obvious to a skilled artisan to manipulate this concentration during routine optimization and experimentation. It should be noted that generally difference in concentrations do not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such as concentration is critical. See *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

With regard to the copolymer molecular weight, the substitution of methyl for butyl will provide a molecular weight of about 68,000. The examiner cites US 5,798,426 as art of interest wherein '426 states that BMA/AA (90/10) has a weight of 69,400, which reads on about 68,000.

Response to Arguments

Applicant argues that the instant claims require dissolving the copolymer in the non-aqueous solvent and Perronin requires the copolymer to be partially soluble. Thus, applicant argues that the concentration of dissolved copolymer could be less than about 5%. Applicant argues that there is not direct teaching of butyl methacrylate and it is only mentioned once in a laundry list.

Applicant's arguments filed 4/11/06 have been fully considered but they are not persuasive. With regard to the argument that Perronin teaches the copolymer is only partially soluble, the examiner points out that Perronin teaches the copolymer must be "*at least* partially soluble in the subsequent media of application" on column 4, lines 24-26. The examiner points

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out that Perronin teaches the instant solvent and thus the polymer must be soluble since the prior art teaches the same solvent as claimed.

With regard to argument the Perronin does not specifically utilize butyl methacrylate, it is the examiner's position that even though it is suggested in a laundry list, the applicant has not provided any unexpected results to overcome the obviousness rejection. Both acrylic acid-methyl methacrylate and acrylic acid-butyl methacrylate are similar compounds wherein one would expect both copolymers to behave similarly if butyl was substituted with the prior art's exemplified methyl. Thus, the claims are rendered obvious. The examiner suggests showing the unexpectedness of comparing a nail composition comprising the instant polymer claimed (BMA-AA) versus the prior art's exemplified polymer (MMA-AA).

Claims 73-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perronin et al (3,991,007) optionally in view of Strella (3,928,656) in view Katsen et al (5,746,817).

The teachings of Perronin have been delineated above. In particular Perronin teaches the preparation of pigment particles coated with an organic polymer. Perronin discusses the importance of pigments in many fields such as paints, inks, plastics, and cosmetics. Note column 1, lines 10-12. Perronin teaches the use of dibutyl phthalate in the ink composition. Strella teaches the instant copolymer.

Perronin does not teach the instant plasticizer.

Katsen teaches an ink composition. Katsen teaches the use of plasticizers such as dibutyl phthalate and dipropylene glycol dibenzoate. See column 5, lines 30-50.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Perronin and Katsen and substitute Perronin's dibutyl phthalate with instantly claimed dipropylene glycol dibenzoate. One would have been motivated to do so since Katsen teaches both dibutyl phthalate and dipropylene glycol dibenzoate function as plasticizers. Therefore, a skilled artisan would have expected similar results since the prior art teaches the functional equivalence of Perronin's dibutyl phthalate and instantly claimed dipropylene glycol dibenzoate.

Claims 73-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perronin et al (3,991,007) in view of Hosotte-Filbert et al et al (5,681,877) in further view of Pagano et al (5772988).

The teachings of Perronin have been set forth above. Perronin teaches the preparation of pigment particles coated with an organic polymer. Perronin discusses the importance of pigments in many fields such as cosmetics. Note column 1, lines 10-12. Example 6 provides a composition with 100 parts a pigment, 350 parts heptane, 90 parts methyl methacrylate, and 10 parts acrylic acid. The methacrylate-acrylic acid copolymer is 70-30. The pigment composition D is then combined in an amount of 190 parts (50% pigment and 50% instant copolymer) with 86 parts nitrocellulose resin, 210 parts ethyl acetate, 22 parts butanol, 155 parts isopropanol, and 28 parts butyl phthalate (plasticizer). Example 13 teaches a copolymer of methyl methacrylate and acrylic acid in the amount of 80-20. Suitable solvents include ethers and esters. See column 2, lines 60-62.

Perronin does not teach the use of a suspending agent or the instant plasticizer.

Hosotte-Filbert et al teach the use of block polymers (acrylic acid and methyl methacrylate) as dispersing agents of pigments in cosmetics. See abstract. Conventional nail varnish bases utilized contain 10-15% nitrocellulose, 8-12% filler resin, 6-8% plasticizer (dibutyl phthalate), 65-75% solvents (ethyl acetate and butyl acetate), 0.8-1.5% suspending agent (bentone), and the pigment is added depending on the desired color. See example 9.

Pagano teaches a nail enamel composition containing pigments. Pagano teaches the use of suspension agents such as bentones, stearylalkonium bentonite, hectorites, etc. in the amount of 0.1-15% as thickeners. See column 8, lines 1-25. Pagano utilizes plasticizers such as instant dipropylene glycol dibenzoate in the nail enamel.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize conventional additives such as a suspending agents in a conventional varnish base. One would have been motivated to do so since Hosotte-Filbert teaches conventional nail varnish base contains plasticizers, suspending agents, solvents, resins, etc. Therefore, one would have been motivated to look to Hosotte-Filbert if one wanted to utilize Perronin's pigment in a nail composition. Further, one would expect similar results since Perronin teaches the pigmented composition may be used in cosmetics.

Furthermore, one would have been motivated to look to the teachings of Pagano and utilize the instantly claimed suspending agent and plasticizer since Pagano demonstrates the state of the art wherein instantly claimed additives are known in the nail art. A skilled artisan would have been motivated to utilize the instant suspending agent since Pagano teaches that Hosotte-Filbert suspending agent (bentone) and the instant suspending agents are functional equivalents. Therefore, a skilled artisan would have expected similar results the instant suspending agent.

Conclusion

All the claims are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharmila S. Gollamudi whose telephone number is 571-272-0614. The examiner can normally be reached on M-F (8:00-5:30), alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sharmila S. Gollamudi
Examiner
Art Unit 1616

